

# EISENHOWER WEST/ LANDMARK VAN DORN *IMPLEMENTATION* Advisory Group

May 24, 2018



# Agenda

- Landmark Mall Update
- Development Economics & Developer Contributions Methodology
- Air Quality Analysis Update
- Sewer Study Analysis Update
- Development Updates
- Questions & Next Steps



# Eisenhower West/Landmark Van Dorn Implementation Advisory Group Meeting

May 24, 2018

## Landmark Development Update



# Howard Hughes Project Team



- Mark Bulmash, Senior Vice President, Development  
Howard Hughes Corporation
- [mark.bulmash@howardhughes.com](mailto:mark.bulmash@howardhughes.com)

## Approved Landmark/Van Dorn Corridor Plan (July 2009)

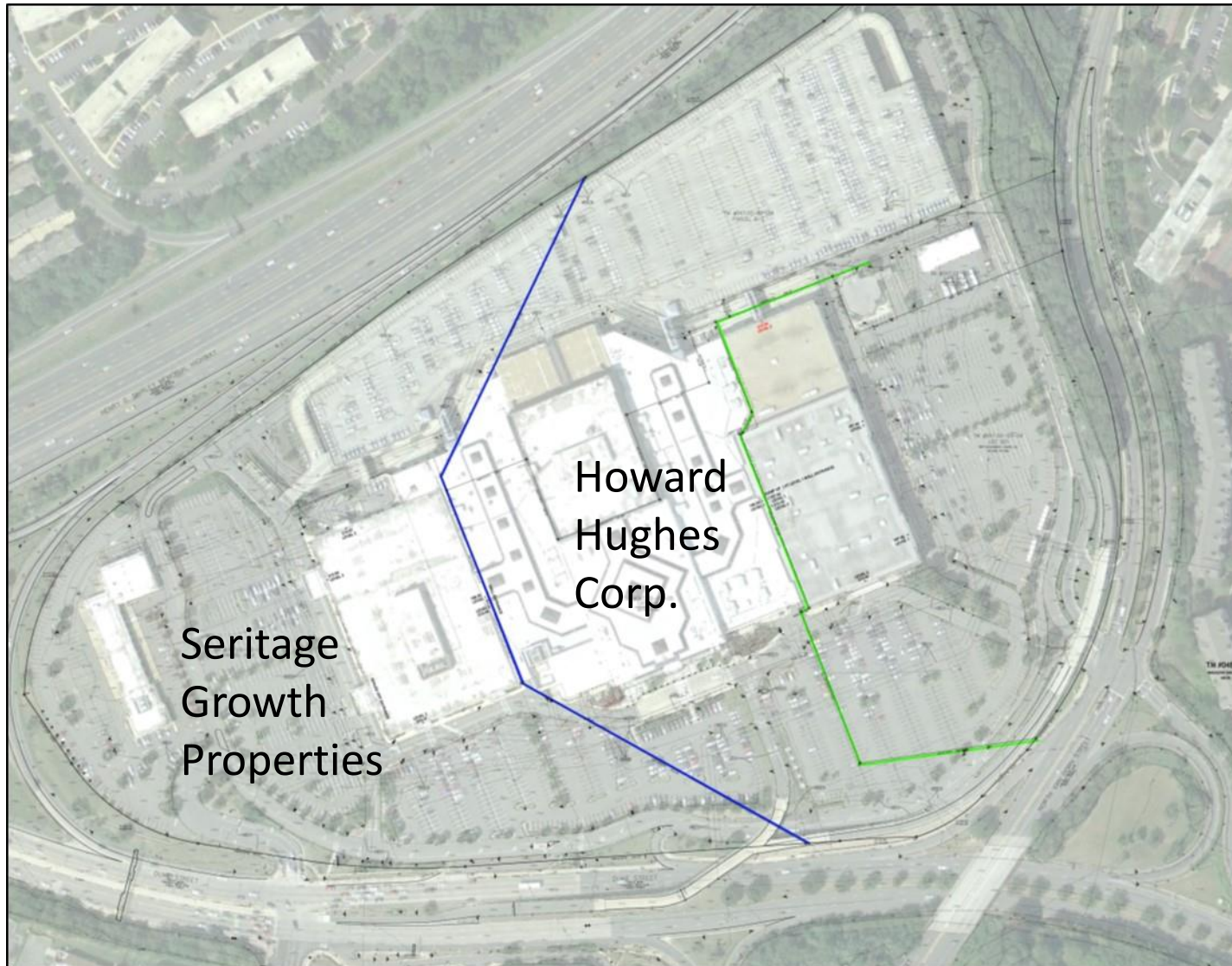


# Small Area Plan Development Parameters

**Table 4-4**  
**Development Parameters for Redevelopment Blocks**

Development Block <sup>1</sup>	Gross Site Area <sup>2</sup> (acres)	Floor Area Ratio <sup>3</sup> Maximum (Minimum)	Allowable (Minimum) Gross Floor Area <sup>3,4</sup>	Land Use	Maximum Height Feet (stories <sup>5</sup> )	Retail Mini- mum <sup>3,6</sup>	Residential Maximum (Minimum) <sup>3</sup>	Office Minimum <sup>3</sup>
West End Town Center								
A. Landmark Mall	51.48	2.5 (2.23)	5,606,000 (5,000,000)	Regional Town Center	85 - 250 (5-25)	800,000	1,800,000 (1,200,000)	2,500,000

## Landmark Ownership





# Current Activities

- Mall Closure
- Temporary Location for Carpenters Shelter
- Sewer Capacity Studies
- Background Traffic Counts for Analysis
- Coordination with Seritage

# Next Steps

- Propose Updates to Small Area Plan
- Staff Analysis
- Community Engagement with Ad Hoc Eisenhower West/Landmark Van Dorn Implementation Advisory Group

Questions or Comments?

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An aerial photograph of a city, likely St. Louis, showing a river, industrial areas, and residential neighborhoods. The text is overlaid on the image.

# Development Economics & Developer Contributions Methodology

# DEVELOPMENT ECONOMICS AND DEVELOPMENT CONTRIBUTION CONSIDERATIONS

W-ZHA, LLC

May 24, 2018

# AGENDA

- Development Economics Primer
- Important Principles
- Development Contribution Considerations
- Key Takeaways

# REAL ESTATE DEVELOPMENT ECONOMICS

# DEVELOPMENT ECONOMICS

**For Developers to invest, the project must generate sufficient net operating income to cover development costs and an adequate return on their investment.**

**Real estate development is relatively illiquid, a mid- to long-term hold, thus high risk.**

# DEFINITION: DEVELOPMENT COST

Construction and soft costs mostly the same Citywide for the same product.

These costs account for 70% of development cost.

Development Cost 60-Unit For-Rent Apartment Building			
Land Acquisition	\$43,000	/Unit	\$2,580,000
Sitework	\$850	/Unit	\$51,000
Construction Cost	\$160	/Bldg Sq Ft	\$9,600,000
Parking Cost	\$30,000	/Space (1.25 /Unit)	\$2,250,000
Soft Costs	20%	of Hard Cost	\$1,920,000
Development Cost Net of Financing Cost			\$16,401,000
Financing	80%	of Cost Financed	\$426,000
Total Development Cost			\$16,827,000
			<i>/Sq Ft \$280</i>
Source: W-ZHA			

# DEFINITION: NET OPERATING INCOME

Net operating income (NOI) is simply income less operating expenses.

Net Operating Income 60-Unit For-Rent Apartment Building			
Gross Potential Income	\$2,125	Rent/Mo	\$1,530,000
Less: Vacancy	5%	Vacancy @ Stabilized Occ.	(\$76,500)
Effective Gross Income			\$1,453,500
Other Income	5%	of Eff. Gross Income	\$72,675
Total Income			\$1,526,175
Operating Expenses	33%		(\$503,638)
<b>Net Operating Income</b>			<b>\$1,022,537</b>

Source: W-ZHA

# DEFINITION: INVESTMENT RETURN THRESHOLD

There are many ways to measure investment return.

The most basic indicator of return is *investment yield*.

The investment yield calculation is  $\text{Net Operating Income} / \text{Development Cost}$ .

An adequate investment yield for a prospective project is the current capitalization rate for the real estate asset plus a risk premium.

Year-End 2017 Capitalization Rate for Multi-Family Housing in the Mid-Atlantic Region

→ 3%-6.75% Avg 5.17%

Alexandria is a hot market will fall on lower end of scale. **Say 4%**

Risk premium depends on economy, inflation, and project characteristics.

→ Generally, a range of 1.5% - 3%

In our base case location in Alexandria moderate-to low-risk. **Say 2%**

**Base Case Investment Threshold: 6%**

# INVESTMENT YIELD: BASE CASE

Real estate operations after lease-up (“stabilized operations”) satisfy the minimum yield threshold.

Investment Yield 60-Unit For-Rent Apartment Building		
Net Operating Income @ Rent /Mo ->	\$2,125	\$1,022,537
Divided By Development Cost		\$16,827,000
<b>Investment Yield Stabilized Yr of Operation</b>		<b>6.1%</b>
<i>Investment Threshold -----&gt;</i>		<i>6.0%</i>
Source: W-ZHA		

# IMPORTANT PRINCIPLES

# Real Estate is Hyper-Local – It Is All About Local Market Conditions, Competition, Location, and Amenities

**Belle Pre Apts -- Braddock**



**Modero Tempo Apts --EW/LVD**



# ECONOMICS SUPER-SENSITIVE TO RENT

Investment Yield 60-Unit For-Rent Apartment Building		
Net Operating Income @ Rent /Mo ->	\$2,125	\$1,022,537
Divided By Development Cost		\$16,827,000
<b>Investment Yield Stabilized Yr of Operation</b>		<b>6.1%</b>
	<i>Investment Threshold -----&gt;</i>	<i>6.0%</i>
Source: W-ZHA		

Investment Yield 5% Lower Rent 60-Unit For-Rent Apartment Building		
Net Operating Income @ Rent /Mo ->	\$2,025	\$974,418
Divided By Development Cost		\$16,827,000
<b>Investment Yield Stabilized Yr of Operation</b>		<b>5.8%</b>
	<i>Investment Threshold -----&gt;</i>	<i>6.0%</i>

# ECONOMICS SENSITIVE TO PERCEPTION OF MARKET RISK

Investment Yield 60-Unit For-Rent Apartment Building		
Net Operating Income @ Rent /Mo ->	\$2,125	\$1,003,060
Divided By Development Cost		\$16,827,000
<b>Investment Yield Stabilized Yr of Operation</b>		<b>6.0%</b>
<i>Investment Threshold -----&gt;</i>		<i>6.0%</i>

Investment Yield & Threshold w/ Perceived Market Risk 60-Unit For-Rent Apartment Building		
Net Operating Income @ Rent /Mo ->	\$2,125	\$1,003,060
Divided By Development Cost		\$16,827,000
<b>Investment Yield Stabilized Yr of Operation</b>		<b>6.0%</b>
<i>Investment Threshold -----&gt;</i>		<i>6.5%</i>

# MARKET DRIVERS

**The Regional Economy and Capital Markets** – Prospects for growth

**Critical Mass or Successful Catalyst Projects in Submarket**—  
Successful major investments reduce the market's perception of location risk

**Transit Investment in Submarket** – Metro proven to generate a 10%-15% rent premium for apartments within easy walking distance

**Walk/Bike Infrastructure in Submarket** – Studies indicate higher walkscore locations achieve higher rents

# THE PUBLIC SECTOR'S INFLUENCE ON MARKET

**A Plan** – Public policy clarity on Submarket's future function & character

**Regulation** – Provides standards to insure quality and consistency into the future

**Transit Investment (Metro, Eisenhower West Transit Way)** – Major public capital investments enhance access and generate value to the Submarket

**Private Sector Partner** – Facilitates desired investment

# DEVELOPER CONTRIBUTIONS PRIMER

## DEVELOPER CONTRIBUTION ANALYSIS, WHY?

To understand the economic implications of re-zoning to determine equitable public/private funding of community infrastructure and amenities

To test the economic feasibility of Plans to manage expectations and allow for informed decision-making

# ECONOMICS OF REZONING: BASIC CONCEPT

By the stroke of a regulatory pen, property owners can reap new value.

The community should capture some of this value.

Basic Concept Economics of Re-Zoning			
	Existing Zoning	New Zoning	Difference
Zoning Max # of Units	15	55	40
Market Demand	15	55	40
Land Value /Unit	\$40,000	\$40,000	\$40,000
Market Value	\$600,000	\$2,200,000	\$1,600,000

# ECONOMICS OF REZONING: KEY CONSIDERATION – MARKET

Is there is market to absorb re-zoning's additional density?

Market Considerations Economics of Re-Zoning			
	Existing Zoning	New Zoning	Difference
Zoning Max # of Units	15	55	40
Market Demand	15	15	0
Land Value /Unit	\$40,000	\$40,000	\$40,000
Market Value	\$600,000	\$600,000	\$0

# ECONOMICS OF REZONING: KEY CONSIDERATION – MARKET

Is the existing use more lucrative as-is than redeveloped?

Value of Existing Land Use Impacts The Value of Re-Zoning Economics of Re-Zoning			
	Existing Zoning	New Zoning	Difference
Zoning Max # of Units	15	30	15
Land Value /Unit	\$25,000	\$25,000	\$0
Market Value	\$375,000		
Existing Land Value: Strip Shopping Center	\$1,000,000	\$750,000	(\$250,000)

# ECONOMICS OF REZONING: KEY CONSIDERATION – ADDITIONAL COSTS

Does the new zoning generate additional development costs?...Parking

Construction Cost Implications Economics of Re-Zoning			
	Existing Zoning	New Zoning	Difference
Zoning Max # of Units	15	55	40
Parking Cost /Unit	0	(\$35,000)	(\$35,000)
Land Value /Unit	\$40,000	\$40,000	\$40,000
Market Value	\$600,000	\$275,000	(\$325,000)

# ECONOMICS OF REZONING: KEY CONSIDERATION – ADDITIONAL COSTS

Does the new zoning generate additional development costs?...Land assembly premiums & roads

Construction Cost Implications Economics of Re-Zoning			
	Existing Zoning	New Zoning	Difference
Zoning Max # of Units	15	55	40
Land Assemblage/Road Costs	0	(\$34,000)	(\$34,000)
Land Value /Unit	\$40,000	\$40,000	\$40,000
Market Value	\$600,000	\$330,000	(\$270,000)

# KEY TAKEAWAYS

# KEY TAKEAWAYS

- **Markets are local and they evolve**
- **Catalytic projects improve investment prospects**
- **Early projects can have little capacity for developer contributions**
- **Planning must consider short, middle and long term economics**

An aerial photograph of an industrial and commercial area. A multi-lane highway runs diagonally from the bottom left towards the top right. To the left of the highway, there are several large industrial buildings with flat roofs, some of which are white and others are grey. There are also some green spaces and parking lots. To the right of the highway, there are more industrial buildings, some with large roofs, and some smaller commercial buildings. The overall scene is a mix of industrial and commercial development.

# Air Quality Analysis Update

City of Alexandria, Virginia

# Update on Air Quality Modeling Study for Eisenhower West Small Area Plan

EW/LVD SAP Advisory Group Meeting  
May 24, 2018





# Recap: Preliminary Modeling (Phase 1)

**Objective:** Assess potential air quality impacts from the Covanta and Virginia Paving stack gases on future hi-rise buildings located in the Van Dorn Metro Center as part of the Eisenhower West Small Area Plan

## Preliminary Results:

- No air quality issue was associated with Covanta and Virginia Paving operations under present land uses
- Additional modeling was needed for proposed buildings for the Van Dorn Metro Center that are above 120 feet high
  - High nitrogen oxides ( $\text{NO}_x$ ) emission limit from Covanta was main concern

Neighborhood 4 Proposed Buildings - EISENHOWER WEST Small Area Plan

From Fig. 5.29 | Neighborhood 4 | Illustrative Plan of EISENHOWER WEST Small Area Plan

Legend

Buildings Included in Model

Covanta Alexandria/Arlington

Covanta Site Boundary

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# Planned Covanta Emission Reductions

- Separate to our modeling, and in response to new regulatory requirements, Covanta submitted a plan to VDEQ that would reduce its emissions using reasonably available technology
  - Proposes a 46% reduction in NO<sub>x</sub> emissions
  - **Who pays** is under discussion at Covanta Facility Monitoring Group



# Current Modeling Effort (Phase 2)

- Expand modeling to examine all proposed buildings in Eisenhower West & Landmark/Van Dorn Small Area Plans
- Assumes new lower  $\text{NO}_x$  permit limit for Covanta
- Modeling both Covanta-Only and combined Covanta/ Virginia Paving scenarios



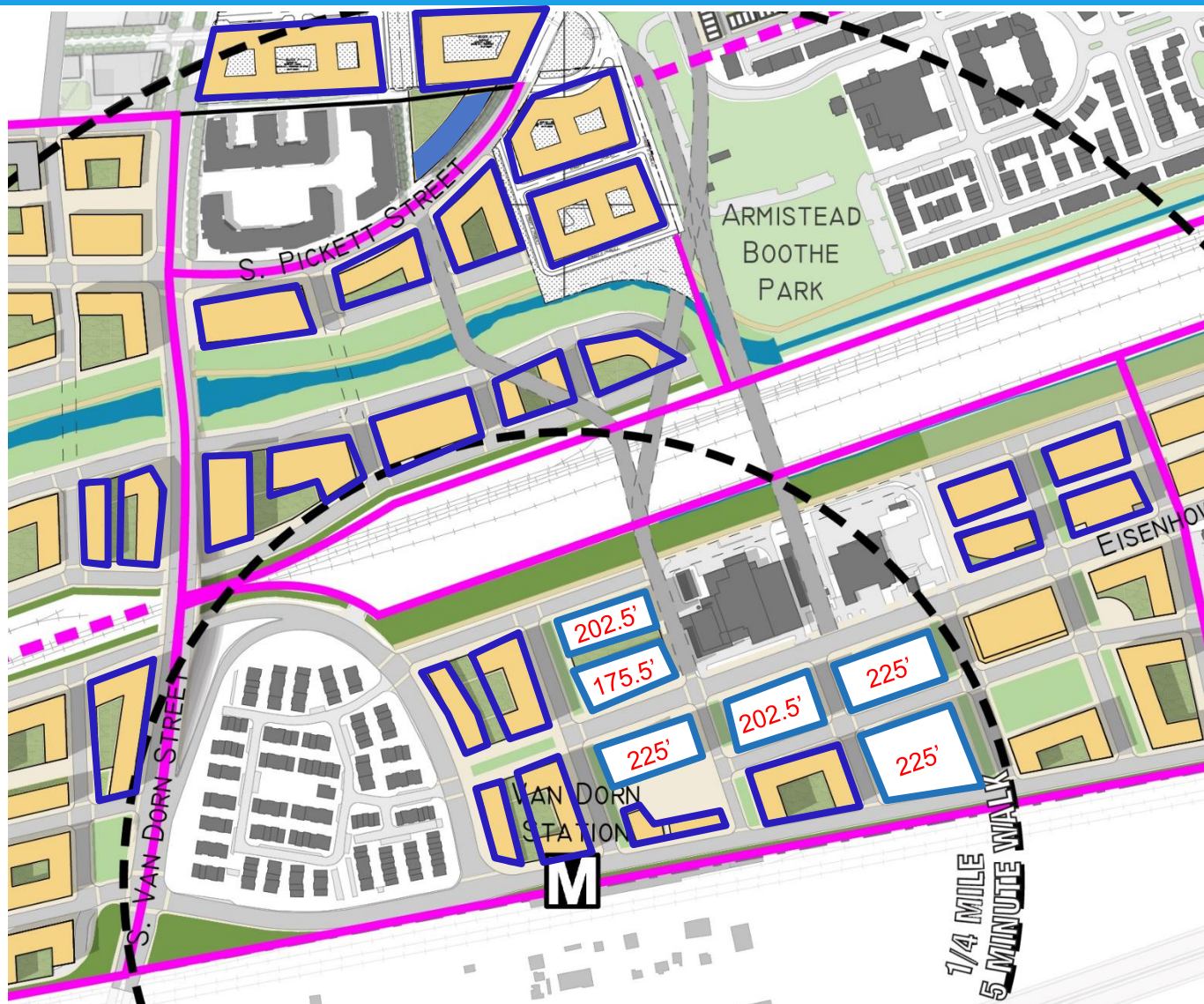


# Major Takeaways

## Covanta-Only Scenario

- Six tall buildings immediately adjacent to Covanta may pose air quality issues if built to maximum heights in plans
- All but one building remains within ranges approved in plan
  - One building 202-267' to 175.5'\*\*\*
  - Three buildings 202-267' to 225'
  - One building 202-267' to 202.5'
  - One building 195-260' to 202.5'

\*\*\* Lower height than approved in Eisenhower West Plan



Buildings having reduced heights indicated by red fonts



**Table 3 AERMOD Predicted Concentrations of Covanta-only Scenario and Comparison to AAQS, Ground Level Receptors**

Pollutant	Averaging Time	Background ( $\mu\text{g}/\text{m}^3$ )	Covanta Only ( $\mu\text{g}/\text{m}^3$ )	Results + Background ( $\mu\text{g}/\text{m}^3$ )	AAQS ( $\mu\text{g}/\text{m}^3$ )	Exceed Standard?
NO <sub>2</sub>	1hr	--- <sup>1</sup>	116.4	116	188	<b>no</b>
	Annual	24.1	6.8	31	100	<b>no</b>
SO <sub>2</sub>	1hr	21.7	48.7	70	196	<b>no</b>
	3hr	33.8	41.8	76	1,300	<b>no</b>
	24hr	14	29.9	44	366	<b>no</b>
	Annual	2.5	5.4	8	79	<b>no</b>
PM <sub>10</sub>	24hr	27	13.5	40	150	<b>no</b>
PM <sub>2.5</sub>	24hr	18.3	1.6	20	35	<b>no</b>
	Annual	7.6	0.7	8	12	<b>no</b>

Notes:

<sup>1</sup> The background 1-hour NO<sub>2</sub> values 98th percentile concentrations for each hour-of-day were used when running AERMOD and therefore already incorporated in the results.

**Table 4 AERMOD Predicted Concentrations of Covanta-only Scenario and Comparison to AAQS, Elevated Receptors**

Pollutant	Averaging Time	Background ( $\mu\text{g}/\text{m}^3$ )	Covanta Only ( $\mu\text{g}/\text{m}^3$ )	Results + Background ( $\mu\text{g}/\text{m}^3$ )	AAQS ( $\mu\text{g}/\text{m}^3$ )	Exceed Standard?
NO <sub>2</sub>	1hr	--- <sup>1</sup>	187.0	187	188	<b>no</b>
	Annual	24.1	5.9	30	100	<b>no</b>
SO <sub>2</sub>	1hr	21.7	117.2	139	196	<b>no</b>
	3hr	33.8	105.0	139	1,300	<b>no</b>
	24hr	14	36.4	50	366	<b>no</b>
	Annual	2.5	4.7	7	79	<b>no</b>
PM <sub>10</sub>	24hr	27	16.1	43	150	<b>no</b>
PM <sub>2.5</sub>	24hr	18.3	2.8	21	35	<b>no</b>
	Annual	7.6	0.6	8	12	<b>no</b>

Notes:


<sup>1</sup> The background 1-hour NO<sub>2</sub> values 98th percentile concentrations for each hour-of-day were used when running AERMOD and therefore already incorporated in the results.



# Next Steps

Refined modeling of the combined Covanta and Virginia Paving scenario needed

- Requesting five-year hourly production rate data from Virginia Paving
- Additional coordination with Virginia Paving needed

An aerial photograph of a city, showing a mix of residential, commercial, and industrial areas. A large river or canal runs through the center-right of the image. The text "Sewer Study Analysis Update" is overlaid in the center in a large, dark blue font.

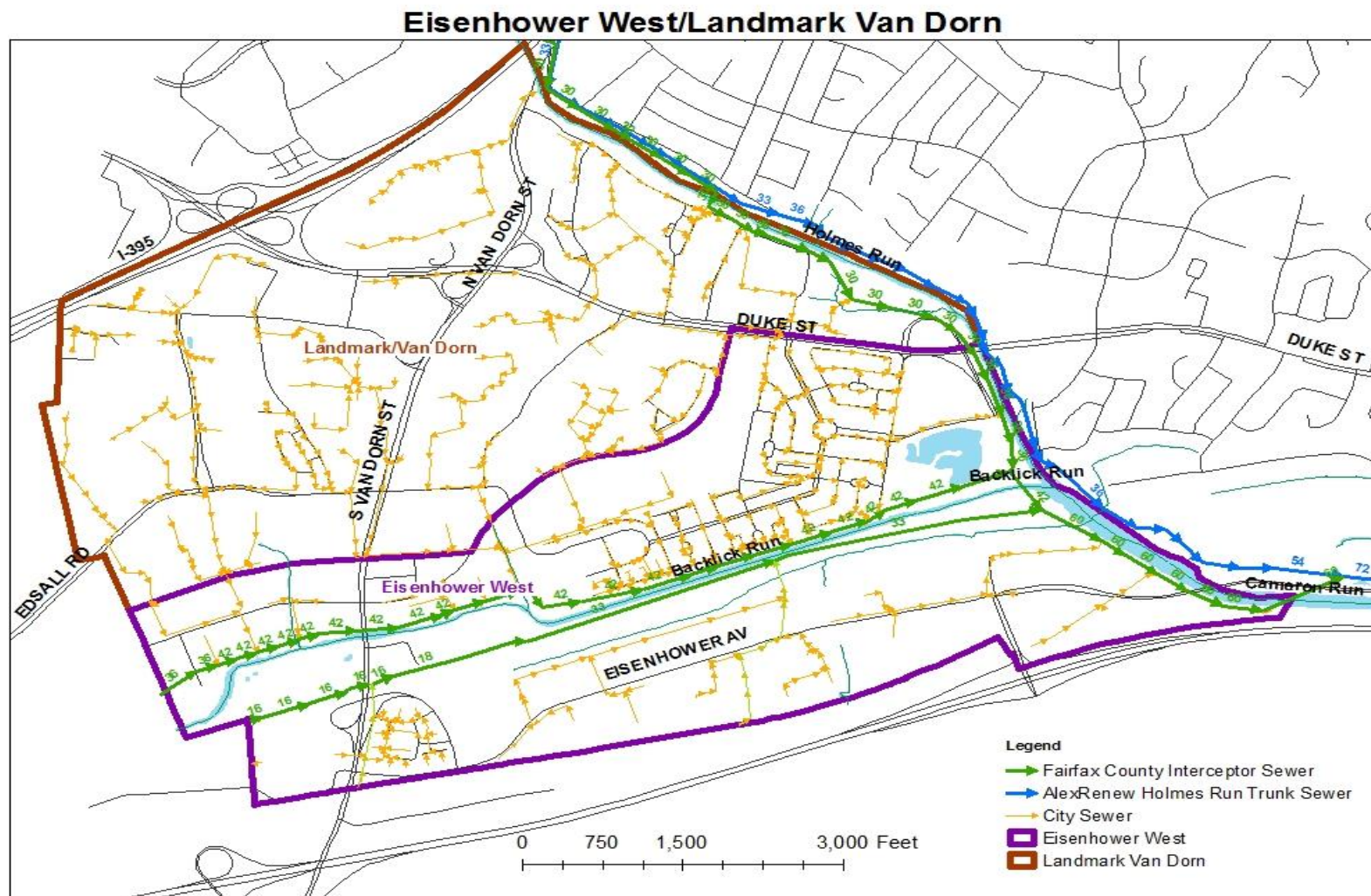
# Sewer Study Analysis Update

# Sanitary Sewer Analysis

- Current study analyzed trunk sewers
  - Fairfax North Backlick Run Sewer
  - Fairfax South Backlick Run Sewer
  - Fairfax Lower Holmes Run Sewer
  - AlexRenew Holmes Run Trunk Sewer
- Existing and future flows (growth)
- Does not include City collector sewers
  - City sewer capacity analysis required as part of DSP/DSUP process

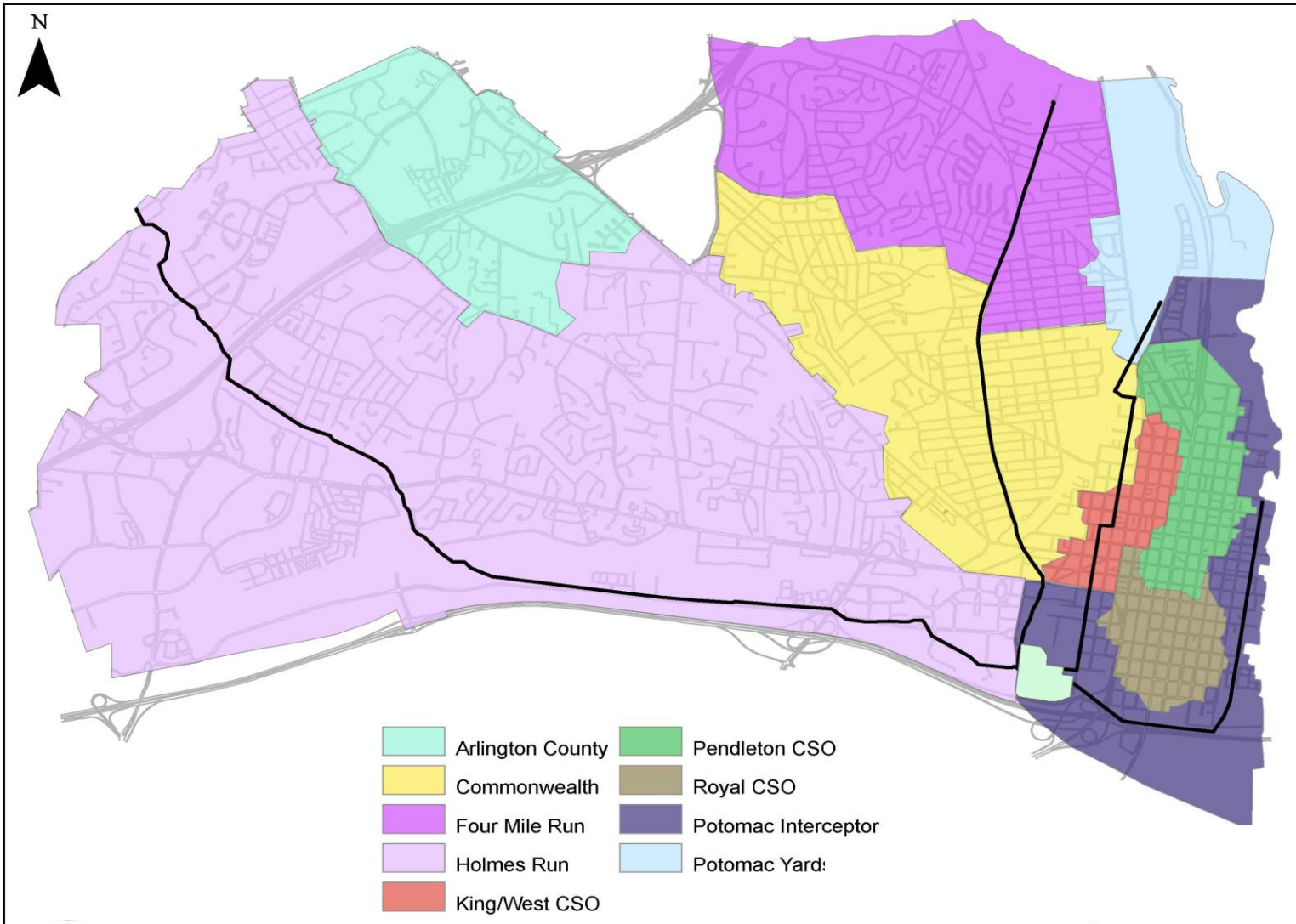


# Sanitary Sewer Analysis



# City Sewersheds – Holmes Run Area is the Largest

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# Project Progress

- Sanitary Sewer Hydraulic Model
  - Model runs completed
  - Capacity issues identified
  - Infrastructure improvements identified
  - Preliminary cost estimate prepared
  - Progress meetings with AlexRenew and Fairfax County
  - Draft report under development



# Model Results Summary

- Fairfax Backlick Run Sewers have sufficient capacity to handle future growth
- Fairfax Lower Holmes Run and AlexRenew Holmes Run Trunk Sewer do not have sufficient capacity
  - Could lead to basement back-ups and sanitary sewer overflows
  - Capacity issues located between City/County Line and Duke Street

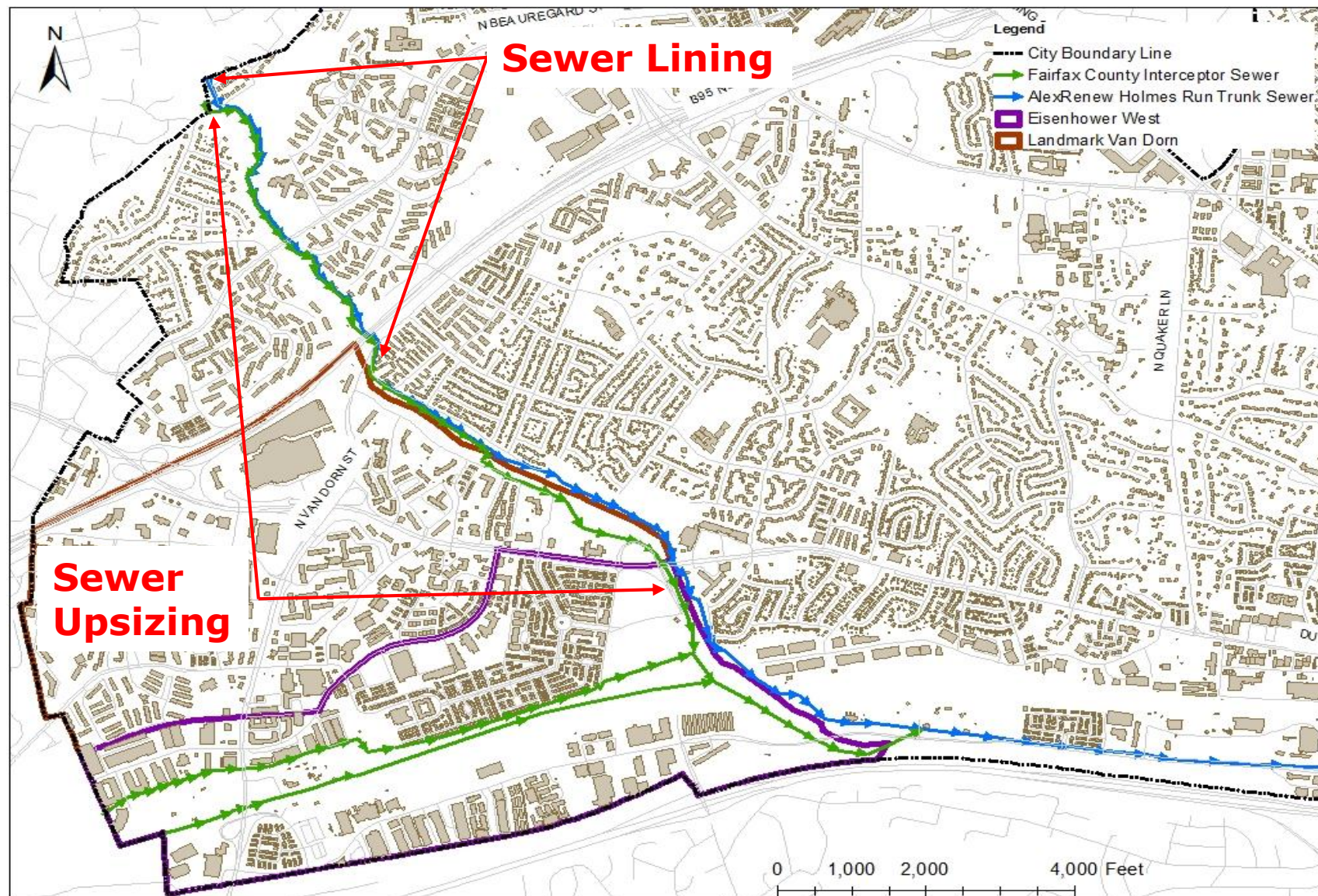


# Capacity Improvements

- AlexRenew Holmes Run Trunk Sewer
  - Sewer pipe lining recommended from City/County line to N. Van Dorn Street
- Fairfax Lower Holmes Run Sewer
  - Sewer replacement (upsizing) recommended from City/County line to south of Duke Street
- Consistent with past modeling efforts



# Capacity Improvements



# Capacity Improvements

- Current level planning cost ~ \$24M (2018 dollars)
  - AlexRenew sewer lining ~ \$4 million
  - Fairfax sewer upsizing ~ \$20 million
  - Design has not yet started, cost estimate will be updated
    - Cost estimate between -30% and +50%
- Costs to be shared between City and County
  - Project timing and cost share discussions anticipated to begin Summer 2018



# Project Schedule

- Winter 2018
  - Assessment of existing capacity and flows
  - Assessment of future flows
  - **Identification of capacity constraints**
- Spring 2018
  - **Preliminary capacity improvements**
  - **Preliminary cost**, timing, funding strategies
- Fall 2018
  - Final findings and report



An aerial photograph of a city, likely San Francisco, showing a large body of water (San Francisco Bay) in the center. The city is built on hills, with a dense urban area on the left and a more industrial or commercial area on the right. A large bridge is visible on the right side of the image. The text "Development Updates" is overlaid in the center of the image.

# Development Updates

# Questions & Next Meeting

- Implementation AG Meeting #7 (September)
  - Final date and location TBD

